

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A receiving device for receiving a transmission unit signal that is sent from a ~~sending end~~communication terminal and accommodates a result of dividing, the result of dividing being obtained by quantizing a value based on relative differences between a plurality of sampling values having temporal prior-posterior relationship therebetween, and dividing data produced in a time series in accordance with a result of the quantizing, at the ~~sending end~~communication terminal,

the receiving device comprising:

a ~~need-of-adjustment determining means~~loss determining device which determines whether or not an amplitude adjustment needs to be made in accordance with a value of an amplitude of a signal waveform indicated by a decoding result of the produced data accommodated in the transmission unit signal; and

an ~~amplitude adjusting means~~adjuster which transparently passes the signal waveform when the ~~need-of-adjustment determining means~~loss determining device determines that the amplitude adjustment does not need to be made, and performs ~~predetermined the amplitude adjusting processing~~adjustment to pass the signal waveform when the ~~need-of-adjustment determining means~~loss determining device determines that the amplitude adjustment needs to be made,

wherein the adjuster includes one of:

a first amplitude adjustment executing section that makes the amplitude adjustment by shifting a waveform axis of the signal waveform;

a second amplitude adjustment executing section that makes the amplitude adjustment by making an absolute value of the amplitude of the signal waveform smaller than a predetermined reference amplitude; and

a third amplitude adjustment executing section that makes the amplitude adjustment by attenuating the amplitude of the signal waveform at a given rate of attenuation.

2. (Currently Amended) The receiving device according to claim 1, wherein the ~~need-of-adjustment determining means~~loss determining device includes:

an amplitude sum total calculating section that calculates a sum total of the results of the quantizing each indicating than the amplitude of the signal waveform; and

a ~~first~~-determination executing section that compares the sum total calculated by the amplitude sum total calculating section with a previously set first threshold value and determines on the basis of a comparison result whether or not the amplitude adjustment needs to be made.

3. (Currently Amended) The receiving device according to claim 1, wherein the ~~need-of-adjustment-determining means~~loss determining device includes:

an amplitude sum total calculating section that calculates a sum total of the results of the quantizing each indicating the amplitude of the signal waveform;

a positive number amplitude sum total calculating section that calculates a sum total of the results of the quantizing each having a positive value out of the results of the quantizing each indicating the amplitude of the signal waveform;

a negative number amplitude sum total calculating section that calculates a sum total of the results of the quantizing each having a negative value out of the results of the quantizing each indicating the amplitude of the signal waveform; and

a ~~second~~-determination executing section that compares the sum total calculated by the amplitude sum total calculating section with a previously set first threshold value, compares the sum total calculated by the positive-number sum total calculating section with a previously set second threshold value, compares the sum total calculated by the negative number sum total calculating section with a previously set third threshold value, and determines on the basis of the three results of the comparing whether or not amplitude adjustment needs to be made.

4. (Currently Amended) The receiving device according to claim 1, wherein the ~~need-of-adjustment-determining means~~loss determining device includes:

a positive-number calculating section that calculates number of the results of the quantizing each having a positive value out of the results of the quantizing each indicating

the amplitude of the signal waveform;

a negative number calculating section that calculates number of the results of the quantizing each having a negative value out of the results of the quantizing each indicating the amplitude of the signal waveform; and

a ~~third~~-determination executing section that obtains a difference between the number calculated by the positive-number calculating section and the number calculated by the negative-number calculating section and compares the difference with a previously set fourth threshold value, thereby determining on the basis of a result of the comparing whether or not amplitude adjustment needs to be made.

5. (Currently Amended) The receiving device according to claim 1, wherein the ~~need-of-adjustment determining means~~loss determining device includes:

an envelope calculating section that calculates an envelope of the signal waveform on the basis of the results of the quantizing each indicating the amplitude of the signal waveform; and

a ~~fourth~~-determination executing section that compares the envelope calculated by the envelope calculating section with a reference envelope calculated beforehand, thereby determining whether or not the amplitude adjustment needs to be made.

6. (Canceled)

7. (Original) The receiving device according to claim 1, wherein when the transmission unit signal received in a time series is lost in a case of executing the amplitude adjusting processing in a unit of the produced data accommodated in one transmission unit signal, a time period just after the produced data corresponding to the lost transmission unit signal is an object to be subjected to processing of the amplitude adjusting.

8. (Original) The receiving device according to claim 5, wherein when the transmission unit signal received in a time series is lost, the reference envelope is calculated from the

signal waveform relating to the produced data immediately preceding produced data corresponding to the lost transmission unit signal.

9. (Currently Amended) A receiving method for receiving a transmission unit signal that is sent from a ~~sending end~~communication terminal and accommodates a result of dividing, the result of the dividing being obtained by quantizing a value based on relative differences between a plurality of sampling values having temporal prior-posterior relationship therebetween, and dividing data produced in a time series in accordance with a result of the quantizing, at the ~~sending end~~communication terminal,

the receiving method comprising the steps of:

determining whether or not an amplitude adjustment needs to be made in accordance with a value of an amplitude of a signal waveform indicated by a decoding result of the produced data accommodated in the transmission unit signal, by a ~~need-of-adjustment determining means~~loss determining device; and

transparently passing the signal waveform when the ~~need-of-adjustment determining means~~loss determining device determines that the amplitude adjustment does not need to be made, and performing ~~predetermined the amplitude adjusting processing~~adjustment to pass the signal waveform when the ~~need-of-adjustment determining means~~loss determining device determines that the amplitude adjustment needs to be made, by an ~~amplitude adjusting means~~adjuster,

wherein the amplitude adjustment is made by any one of:

shifting a waveform axis of the signal waveform,

making an absolute value of the amplitude of the signal waveform smaller than a predetermined reference amplitude, and

attenuating the amplitude of the signal waveform at a given rate of attenuation.